



UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/877,738	06/17/97	RICHARDSON	A 05241/046001

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PM92/0707

ART UNIT 10 SCHOEPPEL PAPER NUMBER

3672 DATE MAILED:

07/07/99

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

#### OFFICE ACTION SUMMARY

- Responsive to communication(s) filed on May 6, 1999  
 This action is FINAL.  
 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire Three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

- Claim(s) 1-3 & 5-7 is/are pending in the application.  
Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 Claim(s) \_\_\_\_\_ is/are allowed.  
 Claim(s) 1-3 & 5-7 is/are rejected.  
 Claim(s) \_\_\_\_\_ is/are objected to.  
 Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.  
 The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.  
 The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.  
 The specification is objected to by the Examiner.  
 The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).  
 All  Some\*  None of the CERTIFIED copies of the priority documents have been received.  
 received in Application No. (Series Code/Serial Number) \_\_\_\_\_  
 received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

- Notice of Reference Cited, PTO-892  
 Information Disclosure Statement(s), PTO-1449, Paper No(s). 7  
 Interview Summary, PTO-413  
 Notice of Draftsperson's Patent Drawing Review, PTO-948  
 Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

Art Unit: 3672

### **DETAILED ACTION**

1. Applicant's election of Group I, claims 1-3 and 5-7, in Paper No. 6 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claim 4 has been canceled.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Warren et al, applicants admitted prior art.

Warren et al disclose a computer controlled top drive drilling system programed to operate servo valve **46** to rotate a drill string clockwise or counterclockwise and to receive several downhole signals to control a motor to advance the drill string at a predetermined angle.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warren et al.

Warren et al disclose a computer controlled top drive drilling system programed to operate servo valve **46** to rotate a drill string either clockwise or counterclockwise as abovesaid but does not specifically alternate the direction of rotation of the drill string and advance it a predetermined angle in a second direction as called for in claim 2 or oscillate said drill string between predetermined angles as called for in claim 6. It would be obvious to one of ordinary skill and having a knowledge of Warren et al to program the computer of Warren et al to couple the direction of rotation so as to rotate the top drive drilling system in alternate directions while drilling or to oscillate the drill string between predetermined angles.

Accordingly, it is deemed by this examiner that it would have been obvious to one of ordinary skill in this art at the time of the invention and having a knowledge of this reference, and when considering the prior art as a whole, to have alternated and/or oscillated the direction of rotation of the drill string and advanced it along a predetermined direction according to the teachings of Warren et al in the design of a computer controlled drilling system for the purpose of improving directional drilling capabilities.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In particular are cited Gosselin and Barr et al as both disclosing drilling systems of interest.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Roger Schoepel whose telephone number is (703) 308-2147. The examiner can normally be reached on Monday through Thursday from 6:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell, can be reached on (703) 308-2151. The fax phone number for this Art Unit is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

R. Schoepel/rjs  
July 2, 1999

*Roger Schoepel*  
**ROGER SCHOEPPEL**  
**PRIMARY EXAMINER**  
**ART UNIT 3672**